MPPN Policy Briefing

Multidimensional Poverty in Chile: Incorporating the Environment and Social Networks into the MPI

The Ministry of Social Development, Government of Chile

Over the past decade, various countries in Latin America and the world have sought to supplement traditional income-focused measures of poverty with a multidimensional approach. In 2015, Chile's government introduced an official multidimensional poverty measure, using data from 2013, in which four dimensions were considered: education, health, employment and social security, and housing. After evaluating the situation and the resulting analysis, Chile took on the challenge of expanding its measures of multidimensional poverty to incorporate indicators that also consider the level of family well-being. Particular attention was paid to indicators related to the local environment in which families live and the social networks that are available to them. Nonetheless, identifying those deprivations from the data obtained through household surveys presented conceptualisation and operationalisation challenges. Various stakeholders from civil society and academia were invited by the Ministerial Advi-

sory Committee on the Local Environment and Networks (Comité Asesor Ministerial sobre Entorno y Redes) to participate in the development of the measure that incorporates the local environment and household networks. This process also received technical backing from various international organisations and the public sector.

AGREEMENT TO INCORPORATE THE 'MISSING DIMENSIONS'

As the specialised literature has recognized, measures of multidimensional poverty tend to omit some aspects that, while they may be essential in describing the experience of people in a situation of poverty, are not noted or measured in a systematic and regular way at a national level by statistical tools (Alkire, 2007; OPHI-CAF, 2015). Including these deprivations (referred to in the specialised literature as 'missing dimensions') in the measurement of poverty means that there are now indicators that can be

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integrated into the current measure of multidimensional poverty, adhering to the rigorous standards of statistical validation. Before that can happen, it is essential to reach consensus on the use of these indicators and define regulatory thresholds that are consistent with existing public policy frameworks as well as with the current expectations and demands of the population, and with the commitments made by the international community.

During the first administration of President Sebastián Piñera (2010–2014), in the context of a broad discussion on the existing methodology, tools, and institutional arrangements of income poverty measurement, the government created the Presidential Commission to Measure Poverty (CMP), whose main function was to advise on the review of all elements related to defining new moderate and extreme poverty lines. This commission set forth proposals for updating the methodology for measuring income poverty, as well as for adopting a multidimensional approach.

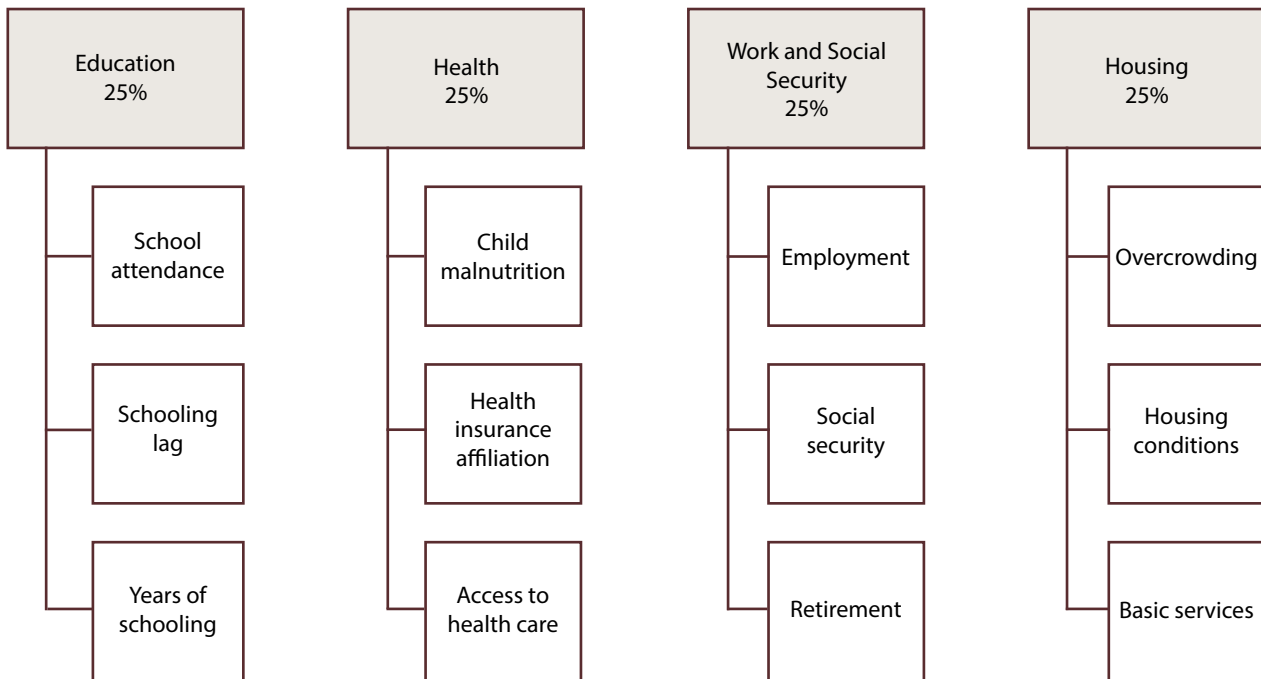The formulations by the CMP[1] were analysed and evaluated by the Interinstitutional Technical Panel (ITP) during President Michelle Bachelet's second administration (2014–2018), in an effort led by the Ministry of Social Development and the National Institute of Statistics (INE in Spanish), with expert advising from the Economic Commission for Latin America and the Caribbean (Comisión Económica para América Latina y el Caribe or CEPAL) and the Oxford Poverty and Human Development Initiative (OPHI) at the University of Oxford. In addition, to support the work of the ITP, the Ministry enlisted the participation of ministries and public services, encouraging dialogue and the joint exploration of possible dimensions, indicators, and thresholds to consider while building a Multidimensional Poverty Index for Chile (CL-MPI).

The initial proposal for a multidimensional measure by the CMP included the dimensions of education, health, employment and social security, and housing. The proposal also took into consideration a collection of specific indicators aimed at describing a fifth dimension called 'local environment and

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1. Summarized in *Informe final de la Comisión para la Medición de la Pobreza* (Final Report from the Commission for Measuring Poverty), published in January 2014.

Figure 1. First Version of MPI-CL

Education 25%	Health 25%	Work and Social Security 25%	Housing 25%
School attendance	Child malnutrition	Employment	Overcrowding
Schooling lag	Health insurance affiliation	Social security	Housing conditions
Years of schooling	Access to health care	Retirement	Basic services

networks', using the questions included for the first time in the National Socioeconomic Characterisation Survey (Casen in Spanish), 2013. In this proposal, 'local environment' was understood as 'the collection of conditions that characterise the territory, the surroundings and the characteristics of habitat or places where people live'. Networks were 'the social capital available to individuals and households, including their connections and mechanisms for social interaction that facilitate care of the family, cooperation, mutual support, and access to material, cultural, and financial resources which facilitate the achievement of personal and collective goals' (Commission to Measure Poverty, 2014).

The indicators within this proposal were evaluated from a conceptual and methodological point of view by the ITP. Subsequently, they were also statistically analysed by the Ministry of Social Development (after the database from the 2013 Casen survey was made available).

The evaluation of the results obtained from the local environment and networks indicators proposed by the CMP, while constituting an expansion in the scope of observation of the phenomenon of

poverty from a multidimensional perspective, revealed problems at different levels. These problems emerged in elements such as their conceptual definition, design and operationalisation in the Casen survey, and the accuracy of the estimates that were generated (Ministry of Social Development, 2015). Because of this, it was considered prudent to exclude the local environment and networks dimension in the first version of the national multidimensional poverty index, in order to continue discussing and evaluating the alternatives of new indicators. The first version of MPI-CL (Figure 1) took into account the remaining four dimensions. Each dimension had three indicators, each one equally weighted at 8.3%, identifying a household as multidimensionally poor if it was experiencing 25% of the weighted deprivations or more.

Taking into account the relevance of the local environment and support networks to a household's level of well-being, the decision to delay the inclusion of these elements in the MPI-CL sought to ensure that the questions and the data to be used would better reflect these problems, thus preserving the validity and consensus reached with the initial multidimensional measure. Therefore, in 2015,

a Ministerial Advisory Committee on the Local Environment and Networks was set up. It was made up of academics and representatives from civil society organisations, with the goal of supporting the evaluation process for incorporating these areas into the MPI-CL.

At the Advisory Committee's suggestion, this process was informed by contributions from an interactive workshop organised by the Ministry, resulting in evaluations from civil society regarding multidimensional measures of poverty, and, specifically, regarding the possible incorporation of indicators that measure deprivations associated with their local environment and the social networks available to households.

The Committee for Local Environment and Networks delivered proposals and recommendations that led to the development of new questions that were evaluated in field experiments – carried out between November of 2015 and January of 2016 – and subsequently included in the final questionnaire of the 2015 Casen survey. Based mainly on these questions, the Committee proposed that indicators and thresholds be created to evaluate their incorporation into a revised version of the MPI-CL (Ministerial Advisory Committee on the Local Environment and Networks, 2016).

As with the previous process, the evaluation of this proposal and the creation and validation of a new measure of multidimensional poverty had the ongoing support of OPHI. In addition, there was feedback from ministries and public services, contributions by the ITP, CEPAL's comments, and advising from another panel of experts convened in conjunction with the 2015 Casen Survey.

INCORPORATING THE LOCAL ENVIRONMENT AND NETWORKS INDICATORS[2]

The physical, social, environmental, and security conditions of the place where people live, as well as a lack of networks that provide support, protection, care, and access to resources in the face of emergency situations create powerful limitations that not only make overcoming poverty more challenging, but also are a form of social exclusion. This exclusion intensifies the deprivations experienced by households in other areas such as education, health, housing, work, and social security.

In the realm of local environment, the notion of well-being is heavily influenced by the experience of inhabiting a determined area. The local environment includes geographic barriers (determined by

2. For greater detail please see *Metodología de medición de pobreza multidimensional con entorno y redes,* Ministerio de Desarrollo Social, 2016).

distance, travel time, accessibility to other places, and availability of transportation systems); risks to physical and mental health (from exposure to sources of contamination, a lack of green and wooded areas, as well as the effect of other external conditions in the surroundings); and limitations on the development of activities conducive to recreation and leisure and social and cultural life in local communities (related to the lack, poor condition and/or inadequacy of public spaces) (Minvu, 2009).

In studies of poverty, social capital and social networks have been recognised as central elements, both with regards to its diagnosis as well as in the policies aimed at overcoming poverty. It is known that social capital can set other kinds of resources in motion, allowing those who use it to have access to better living conditions (CEPAL, 2003).

OPHI has highlighted the importance of considering dimensions such as social isolation as relevant factors in understanding multidimensional poverty. From this perspective, social isolation refers to other deprivations in the quality and quantity of social relationships at different levels of human interaction (at individual, group, community, and societal levels). Therefore it examines managing external social isolation (with regard to the nature and frequency of significant social connections) and internal social isolation (with regard to satisfaction with the connections and a sense of relevance and trust) (Zavaleta, Samuel & Mills, 2014). Attention is paid to how social networks interact with mechanisms of segregation, violence, discrimination, and the deterioration of harmony at a local level. All of these elements are related to the broader concept of social cohesion – a fundamental concept in a country that faces high levels of inequality, which is the case in Chile.

Validation from a public policy standpoint of the dimensions and indicators within a multidimensional poverty measure and acceptable quality standards of data obtained for measuring them are certainly key elements to be safeguarded in this process. In addition, the incorporation of local environment and networks not only meant conceptualising and implementing the indicators, but also taking into consideration how their addition will work with

the first version of MPI-CL. Along these lines, the process to incorporate these elements was guided by the following principles.

1. Consistency with the goal of measuring multidimensional poverty: The proposed changes should result from the dual goals of having a comprehensive diagnostic tool for the situation of poverty in Chile (based on the two measures – income and multidimensional) on the one hand and producing a useful tool for the design, implementation, monitoring, and evaluation of public policies, on the other.

2. Relevance from a public policy perspective: Indicators and new dimensions should be built on a regulatory foundation and be pertinent to both the framework of current public policies and Chile's conventions and commitments.

3. Consistency with the first version of the MPI-CL: The creation of indicators, the type of thresholds defined, and the weighting structure in the new measure should adhere to similar criteria or be reconcilable with the characteristics of the MPI-CL introduced in January 2015.

4. Stability of the measure: There should be continuity in the diagnostic tool in order to ensure that the households and persons who were identified by the previous measure as being in a situation of multidimensional poverty are considered accordingly, as well as encouraging the inclusion of missing elements, laying the groundwork for the identification and visualisation of situations of poverty that were not caught by the initial measure.

In conjunction with the above, statistical trials and analysis were carried out[3] as a foundation for the

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3. Tests sought to determine the level of precision, redundancy, and association with the indicators; additional tests were carried out to assess the strength and dominance of CL-MPI. The data used for that evaluation correspond to the 2015 Casen Survey field studies. Information was recorded for a total of 5,298 individual residents living in 1,567 households located in the regions of Metropolitana, Valparaiso, and O'Higgins.

creation of a revised measure for multidimensional poverty, using only the information available before the creation of the 2015 Casen survey database. In doing so, an attempt was made to ensure that the methodology used to measure multidimensional poverty was based exclusively on technical and regulatory reasons, without taking into account the effects that would be observable in the results (percentage of households and population in a situation of poverty).

The revised version of MPI-CL, which incorporates local environment and networks (Figure 2), was formulated taking into account the Ministerial Advisory Committee on the Local Environment and Networks' conceptual and operational definitions, principles, and statistics; the contributions of the public institutions and actors who participated in its review; and the recommendations from OPHI and the 2015 Casen Panel of Experts. Among the main changes to the measure of multidimensional poverty are the following:

- Five dimensions relevant to the well-being of households and their members: education, health, employment and social security, housing and environment, and networks and social cohesion.

- Each dimension includes an equal number of indicators (three) in order to ensure consistency with current measures and give equal weight to each indicator within each dimension.

- The housing dimension is expanded to incorporate a concept of 'housing and environment', which includes three indicators: habitability (which includes deprivations of overcrowding and housing conditions), basic services, and environment. This new conceptualisation of the housing dimension addresses deprivations linked to the accessibility of social services and facilities.

- A fifth dimension is added, networks and social cohesion, made up of three indicators of deprivations in households: social support and participation, physical safety, and discrimination.

- The four dimensions that were originally included in the measure are given equal weight (22.5%). Meanwhile, the networks and social

cohesion dimension is weighted at 10%. This difference between the consideration given to the original dimensions (22.5%) and the new dimension (10%) favours the stability of the measure, as it reduces the likelihood that households and persons identified as multidimensionally poor will fail to be considered as being in poverty as a result of incorporating the new indicators.
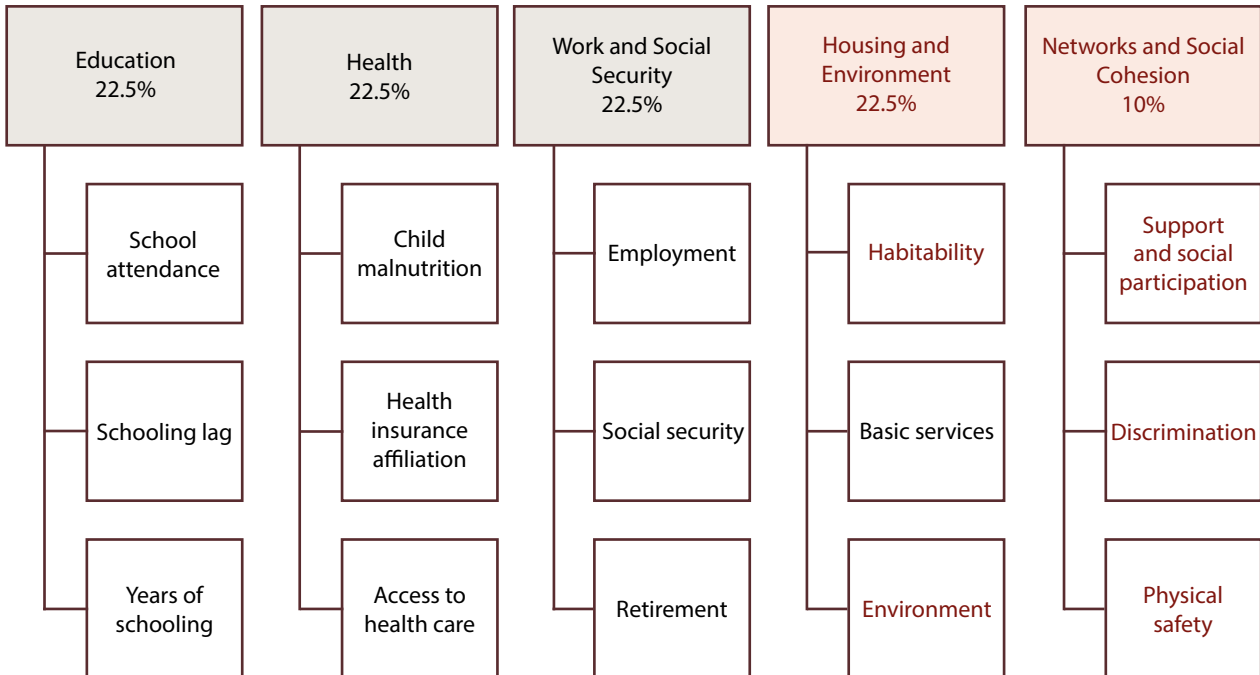
- Likewise, the weights of the indicators of each dimension are equal, which means that they are weighted at 7.5% in the case of the original dimensions (health, education, employment and social security, and housing and environment) and 3.33% for the indicators of the networks and social cohesion dimension.

- In this new context, a household is considered to be in a situation of multidimensional poverty if it is deprived in the equivalent of one of the four original dimensions, that is, if it accumulates 22.5% of weighted deprivations or more.

CONCLUSIONS

The incorporation of missing dimensions such as local environment and networks to the multidimensional measurement of poverty in Chile resulted in a series of challenges. As with the other dimensions, rigorous conceptualisation and operationalisation of the new indicators was required. Nonetheless, in this case the challenge was of a greater magnitude, considering that obtaining information through the use of household surveys resulted in very limited reports. Given this fact, establishing a consensus among different stakeholders in society is key to validating and supporting the measure from a public policy perspective, as well as responding effectively to the demands of the population.

This process has also underscored that, while there is a previous version of the measure, the expanded MPI-CL was intended to remain consistent in its conceptual structure and maintain the continuity of analysis of deprivation in households. Chile's experience demonstrates that it is possible to overcome those challenges, expanding the group of deprivations without losing continuity with the first version of the measure of multidimensional poverty.

Figure 2. Incorporating Environment and Networks Indicators into MPI-CL

Education 22.5%	Health 22.5%	Work and Social Security 22.5%	Housing and Environment 22.5%	Networks and Social Cohesion 10%
School attendance	Child malnutrition	Employment	Habitability	Support and social participation
Schooling lag	Health insurance affiliation	Social security	Basic services	Discrimination
Years of schooling	Access to health care	Retirement	Environment	Physical safety

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ADDITIONAL READING

1. CEPAL (2003). 'Capital social y reducción de la pobreza en América Latina y el Caribe: en busca de un nuevo paradigma' (Social capital and poverty reduction in Latin America and the Caribbean: In search of a new paradigm), Volume 71, Comisión Económica para América Latina y el Caribe.

2. Comisión para la Medición de la Pobreza (2014). 'Informe final de la Comisión para la Medición de la Pobreza' (Final Report from the Commission for Measuring Poverty), Santiago, Chile.

3. Comité Asesor Ministerial Entorno y Redes, (2016). 'Informe Final' (Final Report), Santiago, Chile.

4. Ministerio de Desarrollo Social (2015). 'Pobreza Multidimensional: Anexo Entorno y redes' (Multidimensional Poverty: Environment and Networks Addition), Serie Documentos Metodológicos Nº29, División Observatorio Social: 24 de Enero de 2015.

5. Ministerio de Desarrollo Social (2016). 'Metodología de medición de pobreza multidimensional con entorno y redes' (Methodology for Measurement of Multidimensional Poverty with Environment and Networks), Serie Documentos Metodológicos Nº32, División Observatorio Social: 26 de Diciembre de 2016.

6. Ministerio de Vivienda y Urbanismo (2009). 'Déficit urbano-habitacional: una mirada integral a la calidad de vida y el hábitat residencial en Chile' (Urban-Habitat Deficit: A comprehensive look at quality of life and residential habitat in Chile), Serie VII política habitacional y planificación, Nº 334, Santiago, Chile.

7. Zavaleta, D., Samuel, K. and Mills, C. (2014). 'Social isolation: A conceptual and measurement proposal', OPHI Working Paper 67, University of Oxford.

Original in Spanish. Translated by Kristin Fisher, UN Volunteer.

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